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## **Sensemaking, Simplicity, and Mindfulness**

It is in the realm of the glimpsed potential that the future takes shape

Seamus Heaney

Sensemaking is in the nature of the reflective glance

Karl Weick

### **Introduction**

There is more to the sensemaking perspective than Karl Weick, but it doesn't make a lot of sense without him (Colville, 2009). The sensemaking perspective (Weick, 1995, 2001, 2009) and its progenitor, the organizing model set out in the *Social Psychology of Organizing* (1969, 1979) are directly attributable to Weick. Consequently, it behoves any attempt to make sense of sensemaking perspective to begin with an appreciation of his contribution. And because sensemaking advances essentially a process ontology and epistemology a major aspect of that contribution lies in its formative influence on the process perspective in organization studies (Hernes & Maitlis, 2010; Langley, Smallman, Tsoukas, & Van de Ven, 2013; Tsoukas & Chia, 2002). For example, in Tsoukas and Chia's (2002) highly influential theorizing of the process perspective in management, Weick is lauded as an inspiration and the central figure of process theorizing in management and organization studies. Weick (2010) has customarily demurred; claiming that he was not aware of being a process theorist at the time of writing the key texts (Weick, 1969, 1979, 1995) noting in many ways he was among the last to discover that he was a process theorist as the word process is not in the index of Weick 1995. Weick (2010) does later accept the distinction of being a "process practitioner" which is different from theorist as it only implies "When I look back at what I have said, I see process thinking ('how can I know what I think until I see what I say')" (p. 102). Students of Weick will recognize the familiar one line recipe for organizing (1979, p.

133) and sensemaking (1995, p. 18) that reaffirms that attention and sensemaking lie in the reflective glance.

But if it is the case that life is lived forward and understood backwards, as Kierkegaard tells us (cited by Dru, 1938), then there is a tension between the prospective forward living of life (practice) that has a quality of becoming, with the retrospective assessments of what has happened, which has the quality of time passed or going (theory) (Colville, 2009). This is a central tension for the process and sensemaking perspectives. Despite the unresolved tension, sensemaking has mostly been applied rather than directly tested and refined (Anderson, 2006) nor has it been the recipient of much “in-house” criticism. But recently it has been subjected to more critical reviews (Sandberg & Tsoukas, 2015; Maitlis & Christianson, 2014; Holt & Cornelissen, 2014). Our particular refinement focuses on the sensemaking and organizing ‘recipe’ and its retrospective nature. If sensemaking lies wholly in the reflective glance, and notions of prospective sensemaking (Gioia & Chittipeddi, 1991; Corley & Gioia, 2011) are merely variations of retrospective sensemaking (Gioia, 2006; Sandberg & Tsoukas, 2015) it diminishes its relevance to mainstream organization theory. We live in times suffused with dynamic complexity (Farjoun, 2010) in which the unprecedented and unexpected happen on an increasingly regular basis. This means that lessons from past sensemaking may no longer provide reliable guides to the present and may be pathological regarding the future (Colville, Brown, & Pye, 2012). We argue that redress for the sensemaking perspective lies in rebalancing the enactment, selection, and retention processes constitutive of sensemaking and organizing.

Our proposed rebalancing of sensemaking is advanced in terms of simplicity (Colville, et al., 2012) which has to do with a sharper focus on the type of attention deployed in reducing equivocality together with an understanding of mindfulness that increases the breadth of cues bracketed for consideration, the richness of the interpretation of those cues,

and the swift action that follows (Langer, 1989a; Weick, Sutcliffe, & Obstfeld, 1999; Weick & Sutcliffe, 2006). Taken together, simplicity and mindfulness, close the gap between the realm of the glimpsed potential that gives shape to the future and the retrospective glance to the past. The chapter proceeds: first, with a focused review of sensemaking highlighting its emphasis on process; second, a discussion of how simplicity can help clarify and amend the sensemaking perspective, and, third, a consideration of how individual and collective mindfulness embody simplicity and illustrate an enriched form of sensemaking.

### **A Brief Review of Sensemaking**

Reviews of the sensemaking perspective are like the proverbial London buses; you wait a long time for one to turn up, and a number turn up together (Brown, Colville, & Pye, 2015; Maitlis & Christianson, 2014; Sandberg & Tsoukas 2015). Our review draws upon these but is more focused on tracing the history that reveals the process side of sensemaking, critically highlighting some limitations and showing how they can be addressed.

In the beginning there was organizing (Weick, 1969, 1979) which was followed by sensemaking (Weick, 1995), which was followed by organizing and sensemaking (Weick, Sutcliffe & Obstfeld, 2005). The differences between them are slight with sensemaking and organizing being said to constitute each other (Weick, et al., 2005). Weick (2001, p. 95) essentially consolidates the two when he asserts that it is perhaps best to talk of organizing “as” sensemaking or organizing “through” sensemaking rather than organizing and sensemaking. Sandberg and Tsoukas (2015) put it succinctly by arguing that sensemaking is homologous to organizing: the latter is achieved to the extent that sensemaking is accomplished. Thus organization is said to emerge from an ongoing process in which people make sense of equivocal inputs and enact that sense back into the world to make it more orderly (Weick, 1969; Weick et al., 2005). This approach is best understood in a historical

context. First, *The Social Psychology of Organizing* (1969) was written as a rebuttal to Katz and Kahn's (1966) *The Social Psychology of Organization* and a critique of a static and positivistic view of organization as a reified entity (a view developed more fully in Weick, 1979). Note the only difference between the two titles is the "ing" in organizing – but this is difference that makes a difference. The use of verbs and gerunds signalled processes, whereas the use of the noun organization spoke to entities. The motto was to "stamp out nouns" and to be "generous in the use of verbs ... then more attention would be paid to process and we would learn about how to see it and manage it" (1979, p. 44). Putting it even more starkly, Weick (1979) notes

"The word *organization* is a noun and it is a myth. If you look for an organization you won't find it. What you will find that there are events, linked together, that transpire within concrete walls and these sequences, their pathways, and their timings are the forms we erroneously make into substance when we talk about an organization." (p. 88, emphasis in original)

In other words, if practitioners in and scholars of organizations were focusing on the nouns of sturdy structures, they were missing the point, the processes of which they were a product. On the opening page of Weick (1969) the centrality of process to the organizing perspective is laid bare for the reader. Forget nouns

"Instead, assume that there are processes which create, maintain, and dissolve social collectivities, that these processes constitute the work of organizing, and that the ways in which these processes are continuously executed are the organization." (Weick, 1969, p. 1)

And the reason why processes had to be continuously executed was amplified in Weick (1979).

“The idea of process implies impermanence. The image of organization that we prefer is one that argues that organizations keep falling apart and have to be re-accomplished. Process imagery also means concerns with flows, with flux, and with momentary appearances.” (Weick, 1979, p. 44)

Given this we might forgive the reader for seeing in this a conscious and avowedly process perspective, notwithstanding Weick’s claims that it was only in retrospect that the writer became aware of it. Tsoukas and Chia (2002) linked Weick’s ideas on flow and flux to those of William James, Henri Bergson, and Alfred North Whitehead. Other organizational scholars have utilized Weick as a way of linking to process/pragmatist philosophers. For instance, Bakken and Hernes (2006) drew upon Whitehead, to critique Weick’s motto to “stamp out nouns” and argue that nouns and verbs co-exist and co-evolve such that “organizing is an exercise in noun making” (p. 1601). Weick (2010) subsequently admits that he overemphasised “stamping out nouns” but that it should be understood in terms of the theorizing of the 1970s’ reification of structure. In line with his own motto that it is more important to get people’s attention ahead of intention then certainly it had the desired effect (see Colville, Waterman & Weick, 1999a). But if one looked closer there were always nouns (entities and organizations), but viewed as impermanent and needing to be re-accomplished. Tsoukas and Chia (2002) also sought to reverse ontological priorities and make a process perspective figural with organization as ground. In other words, there are essential stabilities (Colville, Waterman, & Weick, 1999b; Colville, 2009) necessary for seeing process and detecting change. Otherwise it would be like the situation described by Whorf where in a world of blue the color blue could not be detected for lack of contrasting colors (Watzlawick, Weakland, & Fisch, 1974). However, in sensemaking contrast is provided through the retention process.

The retention process is the repository for past successful organizing and sensemaking efforts. It has structure and memory that influences sensemaking through shaping what was singled out for closer attention in the processes of enactment and the interpretations subsequently developed regarding what was bracketed. It also explains why Weick could write that a sensible event is one that resembles something that has happened before (1995, p. 170). But what happens when we live in times characterised by dynamic complexity? When change is not only discontinuous, but continuously discontinuous? When the assumptions on which yesterday rested are exposed, sometimes cruelly, as flawed? In short, when effective sensemaking is not reflected in something that has happened before does this mean that the sensemaking model has outlived its usefulness? Our argument is that it has not, but that it requires amendments. Amendments that lie within the model itself, that require a rebalancing, and a rebalancing which enhances the process dimension and links to mindfulness. This we call simplicity.

## **Simplicity**

Simplicity is a term (Colville, 1994; Colville, et al., 2012; Colville et al., 2016) that refers to organizational skills that characterize future organizing and sensemaking: a fusion of sufficient complexity of thought with actions that simplify. Complexity of thinking is required to notice and register the variety – the wild profusion of things – that reflects an increasingly random, entropic world. But you also require action which clarifies situations by eliminating “might have beens” by reducing equivocality. The difference between reducing equivocality and reducing ambiguity is crucial to our argument and to productive definitions of sensemaking and organizing. Lessening ambiguity, a term which is used in many definitions of sensemaking, implies that through action you can discount what might have been going on and answer “what is going on?”. That is, the fog of ambiguity, clears to reveal the answer.

Reducing equivocality, however, suggests that action does not clarify by allowing you to eliminate “lack of clarity” but that action clarifies by shaping attention and the unfolding reality (Mangham & Pye, 1991). This way one creates the story. That is people don’t just make sense by cognitively interpreting what is going on they also (en)act their way into meaning (Bruner, 1990). What using the term equivocality reminds us of is the integral part action plays in sensemaking. This is something that has been too easily lost in many sensemaking studies and may explain why Sandberg & Touskas (2015, p. S14) conclude that in 84% of the studies they reviewed “processes of sensemaking become synonymous with processes of interpretation which often end up taken as processes of cognition.”

Sensemaking always has been a balance between thinking and acting; simplicity suggests the balance moves toward action in a world suffused by dynamic complexity where the past is an unreliable guide to what is sensible. This is why Weick (2011, p.151) posits “A central issue in sensemaking will be the ways in which people redeploy concepts in order to ward off blind perceptions, and redirect perceptions to ward off empty conceptions.” This is as Weick adds the central tension in simplicity. Simplicity is thus a maxim that not only reminds the 84% that there is more to sensemaking than cognition/interpretation, but it underscores the process perspective because it puts a premium on attending to the potential novelty and changeful nature of action.

William James (1996) tells us that “The intellectual life of man consists almost wholly in his substitution of a conceptual order for the perceptual order in which his experience originally comes” (pp. 49-51). The process perspective and simplicity commands us to return to the phenomena of the percept/cue and to create concepts/frames that enable us to capture the making of events or their organizational becoming (Tsoukas & Chia, 2002). However, this is far from easy. Colville, Pye, and Carter (2013) illustrate how counter terrorism forces struggled to make sense of unprecedented suicide bombings (i.e., new cues)



and effectively place it in a novel frame as it was unfolding. In the specific circumstance it had tragic results. In describing this process, Colville, Pye, and Carter (2013) demonstrate how people act their way into meaning, and perforce have to engage in prospective sensemaking dealing with a fast flowing and complex situation they had never encountered before. But at the same time what it reveals is the lack of reach of the sensemaking perspective in terms of paying attention not just to the content of unfolding experience, but more demanding on the process of experiencing (Tsoukas, 2013). Simplicity draws attention to the need for sensemaking to encompass both simplicity of action (cues) and complexity of thought (requisite variety in frames) and how these two experiences are connected. In short it brackets attention, the “what” of unfolding experience rather than the “how” (Tsoukas, 2013), what is needed to complement it is a consideration of the quality of attention – that is mindfulness.

### **Mindfulness and Simplicity**

We have argued that sensemaking theory, research, and practice can be enriched by better incorporating the notion of simplicity – a fusion of complexity of thought with actions that simplify. This is especially challenging given the nature of organizing as noted by James (1996) and Tsoukas (2005). Specifically, “organizing implies generalizing...the subsumption of heterogeneous particulars under generic categories” (Tsoukas, 2005, p. 124). Organizing also requires coordinating that further forces “interdependent people substitute categorically-based knowing for perceptually-based knowing” (Weick, 2011, p. 24). In other words, people impose discrete concepts on continuous perceptions. But the danger in this substitution (known as a shareability constraint [Freyd, 1983, p. 192; Baron & Misovich, 1999, p. 587]) is that perceptual details get lost and that the world is registered in a less complex and nuanced manner. Simplicity implies attending more closely to the particular perceptual details and processing them more fully. It also entails discrediting history and

prior categories, while action serves to clarify. Mindfulness embodies simplicity in the form of individual mindset and skills (i.e., individual mindfulness) and social processes (i.e., collective mindfulness) that allow for capturing more discriminatory detail and triggering grounded, swift action to reduce the complexity. We next explore individual mindfulness (e.g., Langer, 1989a) and collective mindfulness (Weick, et al., 1999) – and their implications for sensemaking.

### **Individual Mindfulness**

Individual mindfulness is defined as “the state of being attentive to and aware of what is taking place in the present” (Brown & Ryan, 2003, p. 822). Mindfulness also involves a more expansive “attentional breadth” or directing attention toward external events and phenomena as well as internal states (Dane, 2011). In attending to present-moment events, one refrains from making evaluations and thus maintains a “non-judging stance” (Reb, Narayanan, & Chaturvedi, 2014). This view of mindfulness aligns closely with traditional “Eastern” perspectives on the topic that have their foundations in Buddhist thought and emphasize the importance of adopting an open and accepting attitude toward the events one encounters (see Bishop et al., 2004). Individual mindfulness serves to enhance sensemaking by more regular enactment of the environment in ways that discredit the past by focusing on the present and withholding the application of old categories. At the same time the attentional breadth of mindfulness creates more occasions for sensemaking and increases the cues considered in the course of sensemaking.

By focusing on the present moment and remaining open to unfolding events, mindfulness is posited to work by preventing individuals from taking things “personally,” which can leave them vulnerable to interpreting events as an indictment of who they are (Ryan & Brown, 2003). In “re-perceiving” the world in a way that promotes the “decoupling of self” (Glomb et al., 2011), individuals are able to remain open and curious – qualities

promoting insight (Carlson, 2013). Mindfulness also facilitates self-regulation (e.g., Glomb et al., 2011) that reduces their dependence on automatic mental processes and enables people to exert greater control over their actions (Glomb et al., 2011). Decoupling of self and self-regulation both provide a foundation for a more prospective (i.e., grounded in enactment), nuanced, and richer sensemaking.

A different line of research – pioneered by Ellen Langer – defines mindfulness as an active state of mind characterized by novel distinction-drawing that results in being (1) present-focused; (2) sensitive to context and perspective; and (3) guided (but not governed) by rules and routines (Langer, 1989a). In this “Western” perspective mindfulness is expressed through active differentiation and refinement of existing categories and distinctions, creation of new discontinuous categories out of streams of events, and a more nuanced appreciation of context and alternative ways to deal with it (Langer, 1989a). Langer has noted that mindfulness is state of de-automatization where an individual can break free from old categories and stereotypes (Langer, 1989b).

In either tradition mindfulness can be a trait of an individual, but it can also be induced as experimental research has shown that state mindfulness can be activated through brief meditation-related instructions and exercises (e.g., Hafenbrack et al., 2014; Ostafin & Kassman, 2012; Papies, Barsalou, & Custers, 2012; Reb & Narayanan, 2014). Mindfulness can also result from work experience. For instance, Dane (2013) found that, compared to their less experienced colleagues, highly experienced trial attorneys exhibited greater attentional breadth and attention quality. That is, experienced trial attorneys were more attuned to how small events occurring during a trial could be enlisted to strengthen their case. A study of paramedics in Austria similarly indicates that experience is associated with higher levels of mindful awareness; however, this work found that past a certain level of experience, mindfulness declined (Mitmansgruber, Beck, & Schüßler, 2008).

Mindful individuals attend closely and continuously to their surroundings, richly interpret them, and swiftly adapt their actions according to their present moment understanding (Dane, 2011). That is, they notice more cues, interpret and process the cues observed more fully or, in other words, increase the vividness with which people interpret their surroundings (Weick & Sutcliffe, 2006). Consequently, individual mindfulness enriches sensemaking by enabling people to see more nuances and complexities in the events they observe. Thus, the vividness of mindful attention should enable individuals to identify effective courses of action with their present circumstances and perform effectively (Dane, 2013; Rerup, 2009). In other words, mindfulness enriches sensemaking by broadening attention, deepening interpretation, and fostering regular updating (i.e., a focus on the present moment).

There is emerging evidence that the effects of mindfulness on sensemaking also enhance performance in the workplace, especially in complex, dynamic, and high hazard settings. In studies of nuclear power plant operations, Zhang and Wu (2014) found a positive relationships between trait mindfulness and safety performance and Zhang et al. (2013) found a relationship with job performance when task complexity was high. Dane and Brummel (2014) found a positive relationship between mindfulness and job performance among those working in a dynamic service context. Importantly, the effortful nature of mindfulness doesn't seem to come at the expense of workers. Hülshager and colleagues (2013) found mindfulness reduced emotional exhaustion and increased job satisfaction and other have linked mindfulness to greater work engagement (Leroy, et al., 2013; Marzuq & Drach-Zahavy, 2012). In summary, higher levels of mindfulness are associated with higher levels of performance in complex work, in part, because it speeds a more expansive, generative, and resourceful sensemaking and adaptation to the current, unique demands of the work context.

### **Collective Mindfulness**

Like individual mindfulness, collective mindfulness helps people focus attention on perceptual details that are typically lost when they coordinate their actions and share their interpretations (Weick, 2011). In other words, collective mindfulness functions by counteracting the tendency to simplify events into familiar categories, strengthening the capability to surface what is unique about events (Weick & Sutcliffe, 2006, p. 518), and improving capabilities to more swiftly cope with what is seen (Weick, et al., 1999; Weick & Sutcliffe, 2007). Thus, collective mindfulness is a means of engaging in the everyday social processes of organizing and sensemaking that entails a heightened attention to a detailed, up-to-date comprehension of one's context and on factors that interfere with such comprehension (Weick, et al., 1999; Weick & Sutcliffe, 2007). As such it represents a mode of sensemaking that enlarges the set of precepts considered relevant, brackets them more for careful interpretation, and uses action to refine interpretations as well as quickly address discrepancies and unexpected events.

Collective mindfulness conceptually builds on the individual mindfulness research of Langer (1989a, 1989b), but unlike individual mindfulness, collective mindfulness is a social rather than intrapsychic process (Cooren, 2004). Thus, collective mindfulness emerges through real-time interactions that occur in briefings, meetings, updates, and in ongoing work (Schulman, 1993; Weick, et al., 1999). As such, it is a bottom-up processes that is relatively fragile and must be continuously reconstituted (Weick & Sutcliffe, 2007).

Collective mindfulness originally emerged from a systematic review of a specific set of organizations known as high-reliability organizations (HROs, such as aircraft carrier flight decks, air traffic control, and nuclear power control rooms, Roberts, 1990) that continually avoid disaster (and to a large extent error) despite operating in extremely difficult circumstances (Weick et al., 1999).

The content of conversations represent the means by which collective mindfulness can enhance sensemaking including coproduction and co-completion of utterances (Cooren, 2004), reflective reframing of solutions (Hargadon & Bechky, 2006), questioning working hypotheses and rigorously discussing the possibility that something was missed (Madsen et al., 2006), and portraying hazards in uncertain and novel terms (Scott & Trethewey, 2008). In contrast, less mindful conversations rely on outdated categories and labels or are distant from the current situation (Weick, 2005; Weick & Sutcliffe, 2003) and are less effective tools for sensemaking.

Collective mindfulness is seen to inhere in five interrelated processes – preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise (Weick, et al., 1999; Weick & Sutcliffe, 2007). Preoccupation with failure is active consideration and ongoing wariness of the possibility of failure that treats any failure or near miss as an indicator of potentially larger problems (LaPorte & Consolini, 1991). This wariness induces proactive actions in the form of pre-emptive analyses of possible vulnerabilities that may reside in seemingly insignificant deviations that might not warrant immediate intervention but might indicate that the system is operating in unexpected ways. Reluctance to simplify interpretations means actively questioning received wisdom and taken-for-granted assumptions to better uncover blind spots (Schulman, 1993; Weick et al., 1999). It entails socializing members to make fewer assumptions, to bring more perspectives to bear on problems and decisions, and to ensure that key aspects are not overlooked. In other words, frequently discussing alternatives as to how to go about everyday work (Vogus & Sutcliffe, 2007a). Sensitivity to operations means creating and maintaining a current, integrated (i.e., big picture) understanding of operations in the moment (Weick et al., 1999). Doing so instills an orientation toward updating and mutual adjustment to forestall compounding of small problems (Roth, 1997).

Each of these features encompasses the anticipatory and complex thinking of simplicity, but collective mindfulness also increases the sophistication of understanding through swift action and interaction when things go awry. Commitment to resilience involves growing employee and organizational capabilities to adapt, improvise, and learn in order to better recover from unexpected events of any magnitude (van Dyck, Frese, Baer, & Sonnentag, 2005). In other words, recognizing the inevitability of setbacks and thoroughly analyzing them in order to build adaptability and skill (Sutcliffe & Vogus, 2003). Lastly, deference to expertise occurs when decisions migrate to the people with the greatest expertise with the problem at hand regardless of formal position in the organizational hierarchy (Roberts, Stout, & Halpern, 1994). Hierarchical rank is subordinated to expertise, which increases the likelihood that new capabilities will be matched with new problems assuring that emerging problems will get quick attention and action that speeds effective sensemaking (see Roberts et al., 1994, p. 622). That is, in the face of problems or unexpected events, a collective pools the necessary expertise (Vogus & Sutcliffe, 2007a).

Madsen and colleagues (2006) illustrate how the implementation of such practices result in higher levels of collective mindfulness and better outcomes in their study of a pediatric intensive care unit. They found that leaders championing principles of HROs played an especially important role in fostering collective mindfulness by implementing a set of practices including continuing staff education (e.g., regular patient rounds, in-service), supporting staff decisions, post-event debriefings (frequent and inclusive; focused on learning and emotionally coping with difficult events). Consequently, front-line staff were constantly alert to the possibility that they had missed something (preoccupation with failure), regularly interpreted and questioned data that appeared relevant to their working hypotheses (reluctance to simplify interpretations), collaboratively constructed an up-to-date picture of potential threats to safety for each patient (sensitivity to operations), discussed errors and

attempted to learn from them (commitment to resilience), and migrated decisions to bedside caregivers who had more experience with a specific patient (deference to expertise).

Together, the practices and processes produced better patient outcomes (Madsen et al., 2006).

In a study of trauma units Klein and colleagues (2006) found that active leaders with more confidence in themselves and their subordinates more frequently and skillfully engaged in an aspect of collective mindfulness, dynamic delegation (i.e., deference to expertise), in response to the patient's condition. Knox et al. (1999) found that a clear statement of purpose by a leader and modelling preferred language were key enablers of collective mindfulness.

There is a growing body of evidence that collective mindfulness influences a wide array of outcomes. In a rigorous longitudinal case study of Novo Nordisk, Rerup (2009) found three attentional processes focused on attending to weak signals led to recovery from crisis and subsequent highly reliable performance. Consistent with its connection to high-reliability a number of studies have qualitatively associated collective mindfulness with greater organizational reliability (LaPorte & Consolini, 1991; Schulman, 1993; Weick & Roberts, 1993), more effective response to disasters (Bigley & Roberts, 2001), near-disasters (Rerup, 2009), and traumas (Klein et al., 2006). In health care contexts, qualitative studies have also linked observed changes in collective mindfulness to mortality rates (Madsen et al., 2006) and clinical outcomes (Knox et al. 1999). In a qualitative study of firefighters, Scott and Trethewey (2008) found that collective mindfulness was associated with amplifying weak signals and engaging in swift action for novel threats. Hargadon and Bechky (2006) find that mindful interactions among members of professional service firms act as occasions for sensemaking by triggering moments of reflective reframing where individuals demonstrate the difficulty of their problems and share their prior experiences that can help solve them and elicit collective creativity. Other analyses of high profile disasters like the Columbia Shuttle (Weick, 2005), "excess deaths" of pediatric patients at the Bristol Royal



infirmity (Weick & Sutcliffe, 2003), and increases in mortality rates in a pediatric intensive care unit (Madsen et al., 2006) have all been used to show the negative consequences of low levels or even the absence of collective mindfulness.

A series of quantitative studies in hospital nursing units has found that collective mindfulness is associated with fewer medication errors (Ausserhofer et al., 2013; Vogus & Sutcliffe, 2007a, 2007b) and patient falls (Vogus & Sutcliffe, 2007a). The benefits of collective mindfulness were enhanced in workgroups that trusted their leaders and more fully implemented standard operating procedures (i.e., care pathways, Vogus & Sutcliffe, 2007b). In a study of five intensive care units, Hales and colleagues (2012) investigated the effects of a ten day collective mindfulness intervention on multiple indicators and found evidence of fewer negative interactions between nurses and patient families, a 50 percent reduction in the number of failed nurse supervisor inspections, and an improvement in patients discharged alive.

Like individual mindfulness, the benefits of collective mindfulness extend to the workforce, but in a more complex way. For example, Vogus and colleagues (2014) find a complex relationship between collective mindfulness and emotional exhaustion. Specifically, they find beneficial effects of collective mindfulness, namely lower levels of emotional exhaustion, only when a hospital nursing unit had a negative performance history of adverse events like medication errors that caused patient harm. Under those conditions, collective mindfulness acted as a sensemaking resource for problem-solving and regulating individual emotions. In contrast, on units without a history of adverse events, collective mindfulness was associated with higher levels of emotional exhaustion, ostensibly acting as a personal resource depleting demand without tangible benefit. This finding confirms that collective mindfulness is cognitively and emotionally demanding (Levinthal & Rerup, 2006; Schulman,

1993; Weick & Sutcliffe, 2001), but an especially helpful sensemaking resource in difficult circumstances.

## **Discussion and Future Research**

We have argued that the sensemaking perspective can be substantially enhanced through two steps. First, rebalancing the focus on retrospective cognition and interpretation with attention to current and future circumstances through enactment and prospective action, specifically simplicity. Second, operationalizing simplicity in sensemaking research by accounting for individual and collective mindfulness. Yet further conceptual work that elaborates the simplicity perspective on sensemaking and develops propositions regarding the potential roles of individual and collective mindfulness in sensemaking and on its effectiveness is needed. Although we have treated simplicity and mindfulness as intertwined, there may also be value in separating them conceptually and empirically. Next we explore four promising sets of research questions regarding routines, sensemaking accounts, entrepreneurial opportunity and innovation, and affective mechanisms in sensemaking.

**Routines, Simplicity, and Mindfulness.** Mindfulness and simplicity both evoke images of novelty and the unexpected. Under such circumstances one might expect routines to potentially be a hindrance. However, there is research suggesting otherwise and indicates potential directions for research. Routines may be constitutive of simplicity and likely to foster collective mindfulness when they set expectations that help individuals discern threatening deviations (Rerup, 2009; Weick & Roberts, 1993) or act as general guidelines that balance mindful consideration with preserving coherence to ensure swift action (Turner & Rindova, 2012). In addition, the repertoire of routines that a collective possesses may allow its members to draw upon and/or recombine them to make sense of and respond to unexpected events (Bigley & Roberts, 2001; Schulman, 1993). In addition, routines may also

be a tool deployed across an organization (e.g., the audits and facilitation of the Novo Nordisk Way, Rerup, 2009) to enhance mindfulness and sensemaking.

**Mindfulness and Sensemaking Accounts.** Additional empirical work can build upon emerging conceptual refinements to collective mindfulness that attempt to decouple the concept from its conceptual origins in HROs and render it more broadly applicable to the study of organizational processes (e.g., Fiol & O'Connor, 2003; Levinthal & Rerup, 2006; Weick & Sutcliffe, 2001, Chapter 1 or Weick & Sutcliffe, 2007, pp. 18-21). Specifically, research needs to move beyond safety, operational reliability, and things to be avoided or mitigated. Given collective mindfulness's focus on "enriched awareness" and a "more nuanced appreciation of context and alternative ways to deal with it" (Weick et al., 1999, p. 90) and the similar dynamics regarding individuals mindfulness and greater present moment awareness, further research on individual and collective mindfulness could enrich sensemaking. For example, prior research has argued that sensemaking can vary in the extent to which it is "resourceful" (Wright, Manning, Farmer, & Gilbreath, 2000) and that more resourceful sensemaking may be especially essential in knowledge work in dynamic contexts. Alternatively, customer service work, even in relatively routinized retail contexts, relies on developing an intimate and particular understanding of the customer's needs and delivering service responsive to those unique needs (e.g., Benner, Tanner, & Chelsa, 1996). The suggestive study of Ndubisi (2012) regarding salutary effects of collective mindfulness on service process and performance in hospitals suggests that more direct examination of the effects of collective mindfulness qualitatively or quantitatively (using specific measures of collective mindfulness) be conducted. Thus, a group comprised of individuals with higher levels or trait (or state) mindfulness may result in more resourceful sensemaking that is expansive and horizon broadening. However, it may be that a groups processes of collective mindfulness (or lack thereof) may be especially important to the resourcefulness of the

sensemaking that occurs. Both merit further examination and could help deepen the connections between mindfulness and sensemaking. Individual and collective mindfulness might also influence the quality of accounts produced in a sensemaking process, for example, the extent to which they are unitary and rich versus fragmented and narrow (Maitlis, 2005). This research could enhance understanding of the sensemaking process as it behaviourally and conversationally unfolds as well as the relationship between mindfulness and more proximate interpretive outcomes.

**Innovation and Opportunity Construction.** Another domain for which simplicity should be essential and individual and collective mindfulness may be powerful mechanisms is the search for and construction of (entrepreneurial) opportunities. Abilities to perceive, conceive, and understand contextual details and otherwise engaging in more resourceful sensemaking can be critical to innovation (Vogus & Welbourne, 2003) and entrepreneurship (Barton, 2010). For example, Vogus and Welbourne (2003) studied software firms and found indirect evidence that human resource practices were antecedents of mindful organizing and subsequent innovation over the long-term. The positive consequences of collective mindfulness on opportunity-oriented outcomes is bolstered by Barton's (2010) qualitative research on high-tech entrepreneurs and Rerup's (2005) work on "habitual" entrepreneurs. Barton (2010) finds that founders who developed mindful practices for monitoring unfolding events and making sense of equivocal experiences were better able to shape and capitalize on new opportunities. Specifically, mindful practices enabled entrepreneurs to more rapidly build and update their knowledge about an emerging opportunity and perform better as a result. These studies provide a foundation for more detailed conceptual and empirical work to illustrate how individual and collective forms of mindfulness enrich sensemaking such that entrepreneurial opportunities are constructed and acted upon and the conditions under which

this is most likely to occur (e.g., in the presence of specific organizational or leader practices).

**Affective Mechanisms.** Although the events that trigger sensemaking and necessitate mindful processing are often laden with emotion and despite recent work to identify the varied ways in which emotion shapes sensemaking (Maitlis, Vogus, & Lawrence, 2013), emotion remains largely peripheral to sensemaking theory and research. However, bringing mindfulness and sensemaking together holds potential to rectify the theoretical and empirical gap. Emotion regulation is a mechanism that seems to underlie individual and collective mindfulness and could help explain why individuals and groups differ in sensemaking effectiveness. Individual mindfulness research finds that mindfulness fosters emotion regulation that reduces emotional exhaustion (Hülshager et al., 2013). The salutary effects of emotion regulation might help collectives sustain the demanding processes of collective mindfulness (Schulman, 1993), especially in trying conditions. In addition, emotion regulation may be a promising mechanism by which individual mindfulness fosters collective mindfulness. Group or organizational feeling rules (Hochschild, 1979) may help regulate emotion and guide interpretations in ways that foster individual and/or collective mindfulness and correspondingly richer sensemaking. Other affective mechanisms also seem promising for future research including affective forecasting accuracy (see Emanuel, Updegraff, Kalmbach, & Ciesla, 2010). Vogus and colleagues (2014) have previously outlined how emotional ambivalence, the simultaneous experience of two emotions, in the form of simultaneous doubt and hope may help sustain collective mindfulness and richer sensemaking in HROs. This merits further investigation.

## **Conclusion**

We argued that sensemaking theory and research can be enhanced if the focus on retrospection is relaxed to allow for more present moment and prospective enacted

sensemaking. We further posited that simplicity - a fusion of sufficient complexity of thought with actions that simplify – enables a more future-oriented sensemaking. We then articulated how the growing literatures on mindfulness, both individual and collective, represent the processual engine of simplicity and are potentially valuable to explaining sensemaking dynamics and outcomes. We close with a set of proposed research areas that can operate at the intersection of sensemaking and simplicity/mindfulness such that sensemaking research too stays in the present moment with an eye toward the future.

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